

Estimate of the Burden of Illness Caused by Nontyphoidal *Salmonella* Infections in the United States from FoodNet

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Background: One of the objectives of the Foodborne Diseases Active Surveillance Network (FoodNet) is to determine the burden of bacterial foodborne diseases, including *Salmonella* infections. Previous estimates suggest that between 800,000 to 4,000,000 nontyphoidal *Salmonella* infections occur each year in the United States, resulting in an estimated 18,000 hospitalizations and 500 deaths.

Methods: In 1996 and 1997, all clinical microbiology laboratories within the FoodNet sites (CA, CT, GA, MN, and OR) were surveyed to determine practices for isolating *Salmonella*, and active surveillance for culture-confirmed *Salmonella* infections was conducted. Telephone interviews were conducted with a random sample of the 16.1 million residents in the sites to determine the proportion of seeking medical care and the proportion with bloody and nonbloody diarrhea who had stools cultured.

Results: In 1996-97, the average annual rate of culture-confirmed salmonellosis was 13.9 cases per 100,000 population (range 10.7 in Oregon to 17.3 in California). Among culture-confirmed cases, 21% were hospitalized and 0.8% died: among culture-confirmed serogroup B and D cases interviewed, 50% reported bloody diarrhea. Among persons who reported a diarrheal illness in the month before interview, 12% with bloody and 8% with non-bloody diarrhea sought medical care. Among those who sought medical care, 100% with bloody and 20% with nonbloody diarrhea provided a stool specimen for testing. All 263 laboratories that processed stool specimens routinely tested specimens for *Salmonella*.

Conclusions: Salmonellosis presents a major ongoing burden to public health. In our current model, these data suggest that there are 1,400,000 cases of *Salmonella* infections, resulting in 113,000 physician office visits, and 37,155 culture-confirmed cases, each year in this country. Culture-confirmed cases alone resulted in an estimated 8500 hospitalizations and 300 deaths.

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